

## EXECUTIVE SUMMARY

The purpose of hazard mitigation and this plan is to reduce or eliminate long-term risk to people and property from natural hazards and their effects on the Sutter County Planning Area of California. The Sutter County Planning Area geographically corresponds to the jurisdictional boundaries of Sutter County, the City of Yuba City, and the City of Live Oak (collectively referred to in this plan as the Sutter County Planning Area and/or Sutter County.) This plan has been prepared to meet the Disaster Mitigation Act of 2000 (DMA 2000) requirements in order to maintain Sutter County's eligibility for the Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation (PDM) and Hazard Mitigation Grant Programs (HMGP). More importantly, this plan and planning process lays out the strategy that will enable the Sutter County Planning Area to become less vulnerable to future disaster losses.

This multi-jurisdictional plan includes the County, and the incorporated communities of the City of Yuba City and the City of Live Oak. This plan also covers six participating districts: the Gilsizer County Drainage District, Levee District One, and Reclamation Districts 1001, 1500, 70, and 1660.

The DMA planning process followed a methodology prescribed by FEMA. It began with the formation of a Hazard Mitigation Planning Committee (HMPC) comprised of key county, city, district and stakeholder representatives. The planning process examined the recorded history of losses resulting from natural hazards and analyzed the future risks posed to the county by these hazards. Sutter County is vulnerable to several natural hazards that are identified, profiled, and analyzed in the plan. Floods, winterstorms and drought are some of the hazards that can have a significant impact on the Planning Area.

The plan puts forth several mitigation goals and objectives that are based on the results of the risk assessment. To meet identified goals and objectives, the plan also includes a Mitigation Action Plan detailing specific recommendations for actions that can mitigate future disaster losses. This Mitigation Action Plan is detailed in the following table.

### Sutter County Planning Area Mitigation Action Plan

Mitigation Type and Action #	Mitigation Action Title	Priority	Responsible Office
<b>COUNTYWIDE RECOMMENDED MITIGATION ACTIONS</b>			
<b>Emergency Services Measures</b>			
Action #1	Multi-Hazard Public Awareness Program	Medium	Sutter County OES, American Red Cross, City of Yuba City, City of Live Oak
<b>Flood Measures</b>			

<b>Mitigation Type and Action #</b>	<b>Mitigation Action Title</b>	<b>Priority</b>	<b>Responsible Office</b>
Action #1	Sutter Basin Feasibility Study and Improvements	High	USACE Sacramento District, California Reclamation Board, Sutter County
Action #2	O'Banion Road DWR Pump Station Improvements	High	State Department of Water Resources
<b>Agricultural Measures</b>			
Action #3	Noxious Terrestrial Weed Control Project	High	Sutter County Department of Agriculture
Action #4	Aquatic Weed Elimination Project	High	Sutter County Department of Agriculture
<b>UNINCORPORATED SUTTER COUNTY</b>			
<b>Flood Measures</b>			
Action #1	Road Projects to Improve Right of Passage and to Decrease Localized Flooding	Medium	Sutter County Department of Public Works
Action #2	Bypass Crossing @Sacramento Ave.	Medium	Sutter County Department of Public Works
Action #3	Live Oak Canal Constriction Removal	High	Sutter County Water Agency
Action #4	Bogue Road Flood Water Diversion Berm	High	Sutter County Water Agency
<b>CITY OF YUBA CITY</b>			
<b>Emergency Services Measures</b>			
Action #1	Emergency Communications Improvements	High	City of Yuba City Fire Department
<b>Flood Measures</b>			
Action #2	Various Street Improvements to Decrease Localized Flooding	Medium	City of Yuba City Department of Public Works
Action #3	Low Lift Pump Access Road Improvements	Medium	City of Yuba City Department of Public Works
Action #4	Relocation of Wastewater Effluent Discharge Ponds	High	City of Yuba City Department of Utilities
Action #5	East and West Feather River Bank Stabilization	High	City of Yuba City Department of Utilities
Action #6	Gilsizer Slough Weir at Bogue Road	High	City of Yuba City Department of Utilities
Action #7	Comprehensive Flood Management	High	City of Yuba City

<b>Mitigation Type and Action #</b>	<b>Mitigation Action Title</b>	<b>Priority</b>	<b>Responsible Office</b>
	Plan		Department of Public Works
Action #8	Implementation of Additional CRS Activities	High	City of Yuba City Department of Public Works
Action #9	Floodplain Management Planning Outreach	High	City of Yuba City Department of Public Works
<b>Wildfire Measures</b>			
Action #10	Fire Flow Improvements for Groundwater Regions 1, 2 and 3	Medium	City of Yuba City Department of Utilities
<b>CITY OF LIVE OAK</b>			
<b>Flood Measures</b>			
Action #1	Road Projects to Improve Right of Passage and to Decrease Localized Flooding	Medium	City of Live Oak Department of Public Works
Action #2	Lift Pump Back Up Generator Improvements	Medium	City of Live Oak Department of Public Works
<b>GILSIZER COUNTY DRAINAGE DISTRICT</b>			
<b>Flood Measures</b>			
Action #1	Revetment of Slough Channel/Headwalls at Road Crossing	High	Gilsizer County Drainage District
<b>LEVEE DISTRICT ONE</b>			
<b>Flood Measures</b>			
Action #1	Bank Erosion Repairs To Levees in Several Areas	Medium - High	Levee District One
Action #2	Star Bend Set Back Levee	High	Levee District One
Action #3	Relief Well Location (N. Star Bend)	High	Levee District One
<b>RECLAMATION DISTRICT 1001</b>			
<b>Flood Measures</b>			
Action #1	Unit 2 LB Yankee Slough Levee Repairs	Medium	RD1001
Action #2	Feather River/Sacramento River Landslide Stability Berm	High	RD1001
Action #3	North Levee of Natomas Cross Canal Repairs	Medium	RD1001
Action #4	Infrastructure Improvements – District-wide and Main Pumping Facility	High	RD1001

<b>Mitigation Type and Action #</b>	<b>Mitigation Action Title</b>	<b>Priority</b>	<b>Responsible Office</b>
<b>RECLAMATION DISTRICT 1500</b>			
<b>Flood Measures</b>			
Action #1	Karnak Pump Plant Renovation	High	RD1500
<b>RECLAMATION DISTRICT 70</b>			
<b>Flood Measures</b>			
Action #1	Pumping Plant Project	Medium	RD70
<b>RECLAMATION DISTRICT 1660</b>			
<b>Flood Measures</b>			
<b>Action #1</b>	Sutter By-Pass Project	High	RD1660

This plan has been formally adopted by each participating entity and is required to be formally updated every five years.

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# Multi-Hazard Mitigation Plan

## 1.0 Introduction

Sutter County, City of Yuba City and the City of Live Oak (hereinafter collectively referred to the Sutter County Planning Area and/or Sutter County) has prepared this Multi-Hazard Mitigation Plan pursuant to the requirements of the Disaster Mitigation Act of 2000, PL 106-390 and established regulations at 44 CFR Part 201.6 (hereafter referred to as DMA; see Appendix A for a list of acronyms used in this document). This plan documents the DMA planning process, identifies natural hazards and associated risks of concern, and identifies Sutter County's hazard mitigation strategy to make the Planning Area less vulnerable and more disaster resistant and sustainable. Information in the plan can also be used to help guide and coordinate mitigation activities, local mitigation policies, and future land use decisions.

Hazard Mitigation is defined as any sustained action taken to reduce or eliminate long-term risk to human life and property from hazards. Hazard Mitigation Planning is the process through which natural hazards that threaten communities are identified, likely impacts of those hazards are determined, mitigation goals are set, and appropriate strategies that would lessen the impacts are determined, prioritized, and implemented. Hazard Mitigation Planning is required for state and local governments to maintain their eligibility for certain federal disaster assistance and hazard mitigation funding programs.

This section of the plan describes the purpose and need for the plan, the scope of this effort and plan organization.

### PURPOSE AND NEED

Each year, natural disasters in the United States kill hundreds of people and injure thousands more. Nationwide, taxpayers pay billions of dollars annually to help communities, organizations, businesses and individuals recover from disasters. These monies only partially reflect the true cost of disasters, because additional expenses to insurance companies and non-government organizations are not reimbursed by tax dollars. Additionally, many natural disasters are predictable, often with the same results. Many of the damages caused by these events can be alleviated or even eliminated.

FEMA, the Federal Emergency Management Agency, a part of the Department of Homeland Security (DHS), has targeted reducing losses from natural disasters as one of its primary goals. Hazard Mitigation planning and subsequent implementation of projects, measures, and policies developed through those plans are the primary mechanisms for achieving these goals. Success in reducing disaster damages has taken place as the result of mitigation projects implemented subsequent to mitigation planning.

DMA 2000 requires state and local governments to develop Hazard Mitigation Plans in order to maintain their eligibility for certain Federal disaster assistance and hazard mitigation funding programs. Compliance with these requirements will maintain participating jurisdictions' continued eligibility for certain FEMA hazard mitigation grant programs. Communities at risk from natural disasters can not afford to jeopardize this funding.

More importantly, proactive mitigation planning at the local level can help reduce the cost of disaster response and recovery to property owners and governments by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruption. The Sutter County Planning Area has been affected by natural hazards in the past and is committed to reducing disaster impacts and maintaining eligibility for federal mitigation grant funding.

## SCOPE

The Sutter County Multi-Hazard Mitigation Plan is a multi-jurisdictional plan that covers the following communities that participated in the planning process:

- Sutter County
- City of Yuba City
- City of Live Oak

This plan also covers seven additional districts and organizations within the Sutter County Planning Area that meet the FEMA definition of "local government" and participated in the planning process. The participating districts include:

- Gilsizer County Drainage District
- Levee District One
- Reclamation District 1001 (RD1001)
- Reclamation District 1500 (RD1500)
- Reclamation Districts 70 & 1660 (RD70 & RD1660): Meridian Basin

This plan follows DMA planning requirements and associated guidance for developing Local Hazard Mitigation Plans. These guidance set forth a generalized 4-task planning process: 1) Organize your Resources, 2) Assess Hazards and Risks, 3) Develop a Mitigation Plan, and 4) Evaluate your Work.

This plan addresses natural hazards only. Although the participants of the Sutter County Hazard Mitigation Planning Committee (HMPC) recognize that FEMA is both encouraging and promoting communities to integrate human-caused hazards into the mitigation planning process, the scope of this effort did not address these human-caused hazards for two reasons. First, many of the planning activities for the mitigation of human-caused hazards are either underway or complete, and have been developed by a different set of organizations. Secondly, DMA requires extensive public information and input, and this is in direct conflict with the confidentiality necessary in planning for the fight against chemical, biological, and radiological terrorism. The HMPC determined it was not in the community's best interest to publicly share specific information about the area's vulnerability to human-caused hazards.

# PLAN ORGANIZATION

Sutter County's Multi-Hazard Mitigation Plan is organized as follows:

## Executive Summary

- 1.0 Introduction
- 2.0 County Profile
- 3.0 Planning Process
- 4.0 Risk Assessment
- 5.0 Mitigation Strategy
- 6.0 Plan Adoption
- 7.0 Plan Implementation & Maintenance

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# Multi-Hazard Mitigation Plan

## 2.0 Sutter County Planning Area Profile



The Sutter County Planning Area, which geographically corresponds to the jurisdictional boundaries of Sutter County, lies in a portion of north central California known as the Sacramento Valley, approximately 40 miles north of Sacramento. Sutter County's boundaries are generally defined by Yolo and Colusa Counties to the west with the Sacramento River and Butte Slough forming the western boundary; Butte County to the north; Yuba and Placer Counties to the east with the Feather and Bear Rivers forming the eastern boundary; and Sacramento County to the south. The County encompasses approximately 607 square miles (388,358 acres), which can be divided into two general topographical areas: a valley area and the Sutter Buttes. The Sutter County Planning Area is represented in the map that follows.



## **Location and Setting**

Sutter County includes two incorporated cities (the City of Yuba City and the City of Live Oak) and several unincorporated rural communities. A distinct "Yuba City Urban Area" exists which includes incorporated Yuba City, the unincorporated land area immediately surrounding the incorporated city limits (the urban fringe), and Tierra Buena. The following rural communities are also located within the unincorporated area of the county: Nicolaus, Rio Oso, Robbins, E. Nicolaus, Meridian, Sutter, and Trowbridge.

State Highway 99, which extends in a north-south direction through the County, defines the principal transportation corridor connecting the County to the region. State Route 20 is the principal east-west corridor between Highway 99 and Interstate 5.

The City of Yuba City lies west of the Feather River and is located in the northeastern portion of Sutter County, about 40 miles north of Sacramento and 46 miles south of Chico. Yuba City was incorporated in 1908 and has served as a rural farm service center until suburban growth during the 1950's and 1960's changed the character of the community to the primary urban center. Yuba City is relatively flat with no significant elevation variations. The City has historically been surrounded by profitable orchards due to its flat topography and good alluvial soils. Expansion of the City boundaries occurs via annexations of land contained within the City's Sphere of Influence.

The City of Live Oak is located along State Highway 99 in the northeast section of Sutter County approximately 6 miles north of Yuba City. The City was incorporated in 1947 and served as a rural service center for the surrounding agricultural area and serves the same primary function today. Live Oak is flat with less than two percent grade and is within an orchard belt characterized by good alluvial soils which extends westward from the Feather River. Growth within Live Oak primarily occurs within its Sphere of Influence.

The topography of Sutter County is comprised primarily of the gentle flatlands of the Sacramento River Valley. The only prominent topographic feature within the County is the Sutter Buttes, a Pliocene volcanic plug which rises abruptly 2,000 feet above the surrounding valley floor. Geographic features within Sutter County include the Sutter Buttes; the Feather, Sacramento and Bear Rivers, and associated levee system; localized drainage courses; oxbow lakes; the Butte Sink; and the expansive valley floor. The County can be divided into two major geographic units: the valley and uplands. Six major categories of natural features contribute to the overall visual and scenic quality of Sutter County based upon soil types, vegetation and topography: 1) Uplands, 2) Dissected Uplands, 3) Valley Orchards, 4) Valley Floor, 5) Butte Sink and 6) Riparian. Taken from the Sutter County General Plan, descriptions of these areas are included in the following sections.

### **Uplands**

The uplands consist of land ranging in elevation from approximately 100 feet mean sea-level up to the highest elevation in Sutter County (2,117 feet). The only land areas in the County reaching upland elevations are located in the Sutter Buttes (See photo that follows.)



### **Sutter Buttes**

(Source: [www.yubacity.net](http://www.yubacity.net))

There are approximately 32,000 acres of uplands in the Sutter Buttes. The majority of uplands in Sutter County are covered by oak woodlands and valley grasslands consisting of tall trees with scattered brush and grassland between the trees. The periphery of the upland area contains open grasslands generally used for agricultural purposes. Several vernal pools have been inventoried on the State of California's Department of Fish and Game's Natural Diversity Data Base. These pools are generally located in the southwestern and eastern portions of the Sutter Buttes.

The Sutter Buttes are volcanic in origin with many interesting and significant rock out-croppings. These upland areas contain shale, sandstone and soft sandstone. Upland soils are generally shallow with underlying fractured bedrock near the surface. Some small pockets of deeper soil are located in the canyon floor areas between ridges. The primary land use activity in the uplands is grazing with some more intensive agricultural uses located in the pocket areas. Four open-pit mines are located in the Buttes. Mined mineral is primarily used as material for construction base.

### **Dissected Uplands**

The classification "dissected uplands" is from the Agricultural Land Capability Map prepared for the 1972 Sutter County Conservation Element. It applies to the southeastern part of Sutter

County adjacent to Placer County. Dissected uplands are characterized by open grass lands with some row or field crops and with a slight rolling terrain where the land has been eroded by various streams and creeks running through it. The soils have a slow permeability and have difficulty complying with regulations for septic system design. Although generally medium to deep soils, the area contains a hard pan layer at or near the surface to give it the slow permeability. The area identified as dissected uplands in Sutter County has several dairies, stables and cattle ranches.

### **Valley Orchards**

The valley orchards are characterized as having some of the best soils in Sutter County. Soils are alluvial in origin having been laid down by historical flooding of the Sacramento, Feather and Bear Rivers. Valley orchards are located relatively close to Sutter County's rivers and are typically flat with slopes of generally less than two percent. The primary orchard crops in Sutter County based on acreages harvested are prunes, walnuts, peaches and pears. Soil types contained in valley orchards are considered to be the best of the soil classification types according to the U.S.D.A. Soils Conservation Service.

The valley orchards have encountered the most significant urban intrusion due to the proximity of valley orchards to the urbanizing areas. Historically, urban development has occurred at the confluence of rivers in the County; e.g., Yuba City, Nicolaus, Rio Oso and Meridian. These locations also happen to be the locations of the valley orchard areas. Any enlargement of Yuba City north, south, and to a lesser extent west, has been and continues to be into valley orchards.

### **Valley Floor**

The valley floor is a large area of Sutter County which is characterized by flat topography and open row or field crop type agricultural uses. This is the largest single physiographic area in Sutter County. Generally, the valley floor runs from the Butte County line on the north southward in a relative narrow band until reaching the southern side of the Sutter Buttes. South of the Buttes the valley floor widens to encompass the area between Township Road and the community of Meridian. From Highway 20, it runs south southeast encompassing the Sutter Basin to the confluence of the Feather and Sacramento Rivers. Another band of the valley floor area runs northward from the Sacramento County line, through the remainder of the North Natomas Basin, along Highway 70 almost to the Bear River.

The valley floor has an extremely low population density and is dominated by large scale farming operations. Primary crops based upon total acreage are rice, wheat, beans, tomatoes and various types of hay. Soil types are categorized as being moderately good by the U.S.D.A. Soil Conservation Service.

### **Butte Sink**

The Butte Sink is located in the northwestern portion of Sutter County, east of Butte Slough, west of the 50 foot mean sea level contour (which is west of West Butte Road), north of Pass

Road and south of the Butte County Line. The Butte Sink is a wetland, subject to annual flooding from the Sacramento River and Butte Slough with summer drought.

Vegetation in the Butte Sink is generally oak woodland. Some of the area contains species typified in a fresh water marsh environment. Due to the winter flooding which occurs in the Butte Sink, the area is used extensively for waterfowl hunting. Hunting clubs and related facilities are scattered throughout the area. Some agricultural activity is located in the area while other properties are being allowed to revert to natural conditions for hunting operations. In recent years, the U.S. Fish and Wildlife Service has been actively acquiring conservation easements in the area to maintain and improve waterfowl habitat.

### **Riparian**

The riparian areas are those very narrow bands of wetland habitat adjacent to the rivers and streams in Sutter County. The streamside natural communities are characterized by the abundance of water, shade and dense cover. Trees and understory are either dense or widely spaced in clumps. Riparian areas are the most popular wildlife habitat in the area due to the availability of water, food, protection from the sun and large scale human disturbance. Threats to riparian areas are generally from flood protection measures conducted within the levees, pollution, recreational activities and agricultural uses.

### **Infrastructure**

Also taken from the Sutter County General Plan, the paragraphs below provide a brief description of area infrastructure.

### **Water Supply**

Water for urban uses in the county is obtained from surface impoundments from Oroville Reservoir and water for agricultural uses comes from the Bear, Feather and Sacramento Rivers. Yuba City and Live Oak each have a distributed water processing system. However, some urban areas of Yuba City and all of the rural communities rely on groundwater for supply.

### **Electric Supply**

Electric power in Sutter County is mostly supplied by the Pacific Gas & Electric Company. Sutter County has five energy centers that sell the excess power to PG&E and the open market.

### **Surface Transportation**

The main north and south corridor in the county is U. S. Highway 99. Another main transportation artery that passes through the County is Highway 20 and connects the west coast to the Sierra Nevada Mountains.

## **Public Communications Facilities**

Landline and cellular telephone service is available in all areas of the county. High-speed internet capabilities are available to those areas located within and close proximity to the city limits. Broadcast media in the county is out-of-the-area cable television access via microwave relay, and at local radio stations. Most of the television stations are located near Sacramento.

## **Airport**

The county operates a small airport that offers refueling, repair, and crop dusting services. Sacramento International Airport is located 45 minutes south of Yuba City in Sacramento and offers full services to the region.

## **Medical Facilities**

There is one medical center in Sutter County with a total bed capacity of 132. In addition, there are four skilled nursing facilities with a total of 331 beds. A hospital is located in Marysville with a 149 bed capacity that serves both the Sutter and Yuba areas. It also has the only Emergency Room between Chico and Sacramento.

## **Wastewater Facilities**

The wastewater treatment facility provides services to the residents within the city limits of Yuba City and Live Oak. Residents in other areas of the county rely on septic tanks and leach lines to dispose of fluid household waste.

## **Education Facilities**

Sutter County has 18 elementary schools, 2 middle schools, and 6 high schools with a total enrollment of approximately 17,774 students.

## **Parklands**

A variety of wildlife refuges and parks are located throughout Sutter County.

## **Structure Construction**

Framed-type, single-unit housing structures are predominant in county residential areas.

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# Multi-Hazard Mitigation Plan

## 3.0 Planning Process

*44 CFR Requirement 201.6(c)(1): [ The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.*

Yuba City recognized the need and importance of this plan and was responsible for its initiation. The City obtained commitments from Sutter County and the City of Live Oak to pursue development of a multi-jurisdictional DMA plan to cover the entire Sutter County Planning Area. The primary funding source for this planning assistance contract was obtained by Yuba City in the form of a FEMA grant.

Yuba City contracted with AMEC Earth & Environmental (AMEC) to facilitate and develop this Multi-Hazard Mitigation Plan. AMEC's role was to:

- Assist in establishing a Hazard Mitigation Planning Committee (HMPC); as defined by DMA regulations;
- Meet the DMA requirements as established by federal regulations, following FEMA's planning guidance;
- Facilitate the entire planning process;
- Identify the data requirements that HMPC participants could provide, and conduct the research and documentation necessary to augment that data;
- Assist in facilitating the public input process;
- Produce the draft and final plan documents; and
- Coordinate the State OES and FEMA Region IX reviews of this plan.

In addition, planning team members contributed in-kind services to this effort by attending meetings, collecting data, managing administrative details, and providing facilities for meetings.

AMEC established the planning process utilizing the DMA planning requirements and FEMA's associated guidance. This guidance is structured around a generalized four-phase process:

- 1) Organize resources,
- 2) Assess hazards and risks,
- 3) Develop a mitigation plan, and
- 4) Evaluate the work.

This plan also utilizes the process set forth in FEMA Region IX's Crosswalk Reference Document for Review and Submission of Local Mitigation Plans, and the California Office of Emergency Services (CA-OES) guidance for Local Hazard Mitigation Plans (LHMP).

AMEC also integrated an older, more detailed 10-step planning process that was required, at the time this effort was initiated, for other FEMA mitigation plans such as for FEMA’s Community Rating System (CRS) and Flood Mitigation Assistance (FMA) programs. Thus, AMEC formulated a single planning process to meld these two sets of planning requirements together and that meets the requirements of five major programs: CRS, FMA, FEMA’s Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation program (PDM) and new flood control projects authorized by the U.S. Army Corps of Engineers (USACE).

The following table shows how the 10-step process fits within the four-phase process.

<b>Planning Process</b>	
<b>DMA 4-Task Process (44 CFR 201.6)</b>	<b>AMEC and CRS/FMA 10-Step Process</b>
<b>Planning process</b>	<b>Organize Resources</b>
201.6(c)(1)	1. Organize
201.6(b)(1)	2. Involve the public
201.6(b)(2) & (3)	3. Coordinate
<b>Risk assessment</b>	<b>Identify Hazards/Assess the Risks</b>
201.6(c)(2)(i)	4. Assess the hazard
201.6(c)(2)(ii) & (iii)	5. Assess the problem
<b>Mitigation strategy</b>	<b>Develop the Mitigation Plan</b>
201.6(c)(3)(i)	6. Set goals
201.6(c)(3)(ii)	7. Review possible activities
201.6(c)(3)(iii)	8. Draft an action plan
<b>Plan maintenance</b>	<b>Adopt and Implement the Plan</b>
201.6(c)(5)	9. Adopt the plan
201.6(c)(4)	10. Implement, evaluate, revise

## LOCAL GOVERNMENT PARTICIPATION

The DMA planning regulations and guidance stress that each local government seeking the required FEMA approval of their mitigation plan must participate in the planning effort which is defined as meeting all of the following requirements:

- Participate in the plan development process,
- Detail areas within the planning area where the risk differs from that facing the entire area,
- Identify specific projects to be eligible for funding, and
- Have the governing board formally adopt the plan.

For the Sutter County HMPC members, ‘participation’ meant that the local government representatives:

- Attended and participated in the HMPC meetings,

- Provided available data requested of the HMPC,
- Reviewed and provided comments on the plan drafts,
- Advertised, coordinated and participated in the public input process, and
- Coordinated the formal adoption of the plan by the governing boards.

## THE 10-STEP PLANNING PROCESS

As described in more detail below, plan development followed a 10-Step planning process:

### Step 1: Get Organized – Building the Planning Team

With the County’s commitment to participate in the DMA planning process, AMEC worked with the City of Yuba City Utilities Department, lead city agency responsible for plan development, to establish the framework and organization for development of the plan. The plan was developed by the HMPC led by the Utilities Department and facilitated by AMEC, and was comprised of key County, City and other local government and stakeholder representatives. The list of participating HMPC members is provided below.

#### County

- Agricultural Department
- Assessor’s Office
- Community Services
- County OES
- Geographic Information Systems (GIS)
- Planning Department
- Public Works Department
- Sheriff

#### Cities

- City of Yuba City
  - Fire Department
  - GIS
  - Planning Department
  - Utilities Department
  - Wastewater Treatment Facility
- City of Live Oak

#### Local Government/Agency Representatives

- ARES & ARC Radio Communications
- Bi-County Ambulance
- CA-OES
- Community (Public) Representative
- Gilsizer County Drainage District
- Levee District One

- NWS Sacramento
- RD 1001
- RD 1500
- RD 1660
- RD 70
- Red Cross
- Sutter County Resource Conservation District
- Yuba City School District
- Yuba-Sutter Salvation Army
- Yuba-Sutter Transit

The planning process officially began on July 18, 2006 with a kick-off meeting in the Sutter County Planning Area. The meeting covered the scope of work and an introduction to the DMA 2000 requirements. Participants were provided with a Data Collection Guide (Appendix B) that included worksheets to facilitate the collection of information necessary to support development of the plan. Utilizing FEMA guidance, worksheets were designed by AMEC to capture information on historic hazard events, identify hazards of concern to the Planning Area, quantify values at risk to identified hazards, and inventory existing capabilities. Participants were also provided a mitigation project worksheet to record ideas for possible projects identified during the planning process.

The HMPC communicated during the planning process with a combination of face to face meetings, by email and through the use of an FTP (file transfer protocol) site where draft documents were uploaded for download and review by team members. The HMPC met five times over a one-year period.

**HMPC  
Multi-Hazard Mitigation Plan  
Plan Development Meeting Summary**

HMPC Meeting	Meeting Topic	Meeting Date
1	Kick Off Meeting: Introduction to DMA 2000 and the Planning Process and Hazard Identification	July 18, 2006
2	Hazard Identification and Vulnerability Assessment Overview and Work Session	November 2, 2006
3	Risk Assessment Overview and Development of Mitigation Goals and Objectives	December 5, 2006
4	Developing and Prioritizing Mitigation Actions	December 6, 2006
5	Public Meeting Review & Plan Finalization	April 13, 2007

Attendees and agendas for each of the HMPC meetings are on file with the Yuba City Utilities Department.

## Step 2: Plan for Public Involvement – Engaging the Public

At the kick-off meeting, the HMPC discussed options for public involvement. The HMPC's approach utilized established public information mechanisms and resources within the community. Public involvement activities included press releases, website postings and collection of public comments to the draft plan. An early public meeting was held during the early stages of the plan development process (December 5<sup>th</sup>, 2006) and two public meetings (April 11<sup>th</sup> & 12<sup>th</sup> 2007) were held prior to finalizing the plan and prior to plan adoption. Stakeholder and public comments are reflected in the preparation of the plan, including those sections addressing mitigation goals and action strategies. All press releases and website postings are on file with the Yuba City Utilities Department. The plan is online (see screenshot below) and available for viewing at: <http://www.yubacity.net/index.cfm?navid=6797>



## Step 3: Coordinate with other Departments and Agencies

Early on in the planning process, the HMPC determined that data collection, mitigation and action strategy development, and plan approval, would be greatly enhanced by inviting other state and federal agencies to participate in the planning process. Based on their involvement in hazard mitigation planning, their landowner status in the county, and/or their interest as a neighboring jurisdiction, representatives from the following key agencies were invited to participate as members of the HMPC:

- Brittan Elementary School District

- Browns Elementary School District
- Butte County
- California Department of Forestry
- California Department of Water Resources
- California Office of Emergency Services
- Colusa County
- Fairview Cemetery District
- Feather River Air Quality Management District
- Feather Water District
- Levee District 9
- Live Oak Cemetery District
- Live Oak Unified School District
- Marcum-Illinois Union School District
- Meridian Cemetery District
- Meridian Elementary School District
- Meridian Fire Protection District
- National Weather Service
- Nuestro Elementary School District
- Placer County
- Pleasant Grove Cemetery District
- Pleasant Grove Joint Union School District
- Reclamation District 1660
- Sutter Basin Fire Protection District
- Sutter Cemetery District
- Sutter Community Services District
- Sutter County Resource Conservation District
- Sutter County Superintendent of Schools
- Sutter-Yuba Association of Realtors
- Sutter-Yuba Mosquito & Vector Control District
- Tisdale Irrigation District
- Winship Elementary School District
- Yolo County
- Yuba City Downtown Business Association
- Yuba City Unified School District
- Yuba County
- Yuba-Sutter Chamber of Commerce
- Yuba-Sutter Economic Development

In addition to those listed above, the HMPC utilized the resources of the agencies and groups listed below in the development of this plan. Specifically, technical data, reports and studies were obtained from those agencies and groups listed below as well as those identified above either through web-based resources or directly from agency resources.

- California Department of Forestry
- California Department of Health Services

- California Department of Transportation
- California Department of Water Resources
- California Geological Survey
- California Office of Emergency Services
- Department of Interior, U.S. Fish & Wildlife
- Department of Interior, U.S. Geological Survey
- FEMA Region IX
- National Oceanic and Atmospheric Administration, CIRES Climate Diagnostics Center
- National Oceanic and Atmospheric Administration, National Climatic Data Center
- National Oceanic and Atmospheric Administration, National Weather Service
- Seismic Safety Commission
- State and Federal Historic Preservation Districts
- Sutter County Resource Conservation District
- Western Regional Climate Center

## **Other Community Planning Efforts and Hazard Mitigation Activities**

Coordination with other community planning efforts is also paramount to the success of this plan. Hazard mitigation planning involves identifying existing policies, tools and actions that will reduce a community's risk and vulnerability from natural hazards. The Sutter County Planning Area utilizes a variety of comprehensive planning mechanisms such as the General Plan and County and City policies to guide and control community growth and development. Integrating existing planning efforts and mitigation policies and action strategies into this Multi-Hazard Mitigation Plan establishes a credible plan that ties into and supports other County and incorporated community programs. The development of this plan utilized information included in the following key plans, studies, reports, and initiatives from the County and other participating jurisdictions:

- East Lincoln Area Specific Plan
- Emergency Management Plans
- Flood Insurance Studies
- Harter Specific Plan
- State of California, Multi-Hazard Mitigation Plan, 2004
- Sutter Basin Feasibility Study
- Sutter County, City of Yuba City and City of Live Oak General Plans
- Urban Water Management Plan
- West Yuba Drainage Study

A more complete listing of these resources is provided in Appendix E. In addition, many other documents were reviewed and considered, as appropriate, in Steps 4 and 5 during the collection of data to support the Risk Assessment portion of the plan.

## **Step 4: Hazard Identification and Step 5: Risk Assessment**

AMEC led the HMPC in an exhaustive research effort to identify and document all the natural hazards that have, or could, impact the Planning Area. Data collection worksheets were developed and utilized in this effort to aid in determining hazards and vulnerabilities, and where the risk varies across the Planning Area. GIS was also used to display, analyze, and quantify hazards and vulnerabilities. Step 5 included a Capability Assessment which documents the participating jurisdictions' current capabilities to mitigate natural hazards. A more detailed description of the risk assessment process and the results are included in this plan as Section 4.0 – Risk Assessment.

## **Step 6: Identifying Goals and Step 7: Review Possible Measures**

AMEC facilitated brainstorming and discussion sessions with the HMPC that described the purpose and the process of developing planning goals and objectives, examined a comprehensive range of mitigation alternatives, and utilized a method of selecting and defending recommended mitigation actions determined by a series of selection criteria. This information is included in this plan as Section 5.0 – Mitigation Goals and Strategy. Additional planning process documentation of the mitigation strategy development is provided in Appendix C.

## **Step 8: Draft the Mitigation Action Plan**

AMEC developed several drafts of this plan for the HMPC. The first preliminary draft consisted of the Risk Assessment portion of the plan and was reviewed by members of the HMPC in advance of the mitigation planning goals and strategy development meetings. AMEC received comments, made appropriate revisions at the direction of the HMPC, and developed a first complete draft of this plan, which included the HMPC's mitigation strategy and other required plan elements. This complete draft was posted for HMPC review and comment on an internal ftp site. Other agencies were invited to comment on this draft as well. HMPC and agency comments were integrated into the second complete draft, which was advertised and distributed for the purpose of collecting public input and comments. The comments and issues from the public and the additional internal review comments were then discussed with the HMPC, appropriate revisions were made, and a third and final draft of the plan was produced reflecting the public and technical input for CA-OES and FEMA review.

## **Step 9: Adopt the Plan**

In order to secure buy-in and officially implement the plan, the plan was adopted by the Sutter County Board of Supervisors, the City Councils for the City of Yuba City and the City of Live Oak, and governing boards for the other participating jurisdictions. Scanned versions of the adoption resolutions are included as part of Appendix D to this plan.

## **Step 10: Implement the Plan**

The true worth of this, and any mitigation plan, is its final step – implementation. To this point, all of the HMPC efforts have been directed at researching data, coordinating input from participating entities, and developing appropriate mitigation actions. Each recommended action includes key descriptors, such as a lead manager and possible funding sources, to help initiate implementation of the specific action. Beyond that, however, an overall implementation strategy is described in Section 7.0 – Implementation and Plan Maintenance.

Finally, there are numerous organizations within the Planning Area whose goals and interests interface with hazard mitigation. Coordination with these other planning efforts, both in the development and implementation of this plan, is paramount to the ongoing success of this plan and overall mitigation in the county and is addressed further in Section 7.0. A plan update and maintenance schedule and a strategy for continued public involvement is also documented in Section 7.0.

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